

PROGRAM OUTCOMES (PO)

DEPARTMENT: PHYSIOLOGY

PROGRAM: PHYSIOLOGY GENERAL

	PROGRAM OUTCOMES
OBJECTIVES	<p>A Graduate Student upon successfully qualifying in the B.Sc. Physiology GE / DSC Examination shall be able to</p> <p>A) Understand & deal with all aspects of general, systemic and applied physiology.</p> <p>B) Teach effectively the basic physiological mechanisms of human body with reference to their implications in the pathogenesis of diseases affecting various organ systems.</p> <p>C) Conduct relevant project which may have significant bearing on human health.</p> <p>D) Interact with Allied Departments and participate in advanced laboratory investigations.</p> <p>E) Teach the basic physiological mechanisms of human body with reference to their implications in the pathogenesis of diseases and their management at the school level and also to the society by participating in different health related projects or health camps.</p> <p>F) Participate actively in various health related seminars, workshops to acquire various skills.</p>

<p>DESIRED LEARNING OUTCOMES OF THE PROGRAM</p>	<p>At the end of the Course the Student shall be able to</p> <p>A) Conduct Experiments designed for the study of Physiological Phenomena.</p> <p>B) Interpret Experimental Data.</p> <p>C) Distinguish between Normal and Abnormal Data derived as a Result of tests which she has performed and observed in the laboratory.</p> <p>D) Apply for Research Methodology Training Programs.</p> <p>E) Write Papers and Publish them in Indexed Journals.</p>
<p>PROPORTION OF KNOWLEDGE/SKILL/SOFT SKILL IN THE CURRICULUM</p>	<p>A) KNOWLEDGE</p> <p>All aspects of General, Systemic & Applied Human Physiology.</p> <p>B) SKILLS</p> <p>Biochemistry, Histology & Haematology Practicals, Sports Physiology Related Human Experiments.</p> <p>C) SOFT SKILLS</p> <p>Effective Communication Skills through the preparation & presentation of Posters as well as Powerpoints in Seminars/ Scientific Events.</p>

CURRICULUM & EMPLOYABILITY	1) Medical Representatives 2) Medical Laboratory Technician 3) Sports Nutritionist 4) Cardiovascular Technician 5) Health Care Administrator 6) Laboratory Assistant 7) Research Assistant 8) Science Technical Writer 9) Therapist Assistant etc.

PROGRAMME SPECIFIC OUTCOME (PSO)

DEPARTMENT: PHYSIOLOGY; PROGRAMME: PHYSIOLOGY GENERAL

AIMS OF PSO:

- 1 . To provide a course of study on human physiology based on knowledge of basic physiological and biochemical principles.
2. To introduce new and more complex physiological functions.
3. To develop further practical based skills such as hematological techniques etc.
4. To prepare students for a number of interdisciplinary courses such as medical laboratory technology, pharmacy, physiotherapy, dietetics , optometry etc.

OBJECTIVES OF PSO:

- 1 . To experience a science-based curriculum characterized by the depth of course offerings.
2. To acquire application based knowledge by the modules offered in the course curriculum.
3. To provide effective advising related to the course and academic planning.
4. To provide quality lab facilities and equipment in the course of their studies.
5. To give opportunities to the students to participate in applied inter- disciplinary courses.

OUTCOME:

PS01 : Students will have an enhanced knowledge and appreciation of human physiology including basic concepts and principles for proper functioning of human body, awareness about internal environment of the body and how to maintain it.

PS02: Students will acquire vast knowledge about various mechanisms and the functions of important physiological systems including the cardio-respiratory, renal, reproductive, endocrine, nervous and metabolic systems.

PS03: Students will understand how these separate systems interact to yield integrated physiological responses during exercise, sports, training etc.

PS04: Students will be able to develop necessary knowledge based on course and also will be able to create and apply appropriate techniques, resources, modern science and IT tools to collect data to solve the problems.

PS05: Students will be able to employ critical thinking in understanding the concepts in every area of this programme and develop a sense of research to predict, cause and effect relationships.

PSO 6: Students will be able to identify the key factors and apply appropriate principles and assumptions to solve the problems by appropriate analytical and approximation methods.

PSO7: Students will be able to understand the use of different Laboratory instruments related to biochemical estimation, hematology, histology, human experiments.

PSO8: Students will be able to share and express their knowledge effectively in both oral and written form.

PSO9: Students will be able to formulate diet chart for the people of different age groups by surveying their neighbourhood.

PSO10: Students will be able to explain environmental pollutants and how human beings create pollution and what are the strategies to conserve ecosystem in healthy and wealthy conditions.

PSO11: Students have ability to understand all the basic body functions as well as diseases, molecular diseases of human beings.

PSO 12: Students will be able to acquire skills through logical reasoning, inculcate the habit of self learning, transfer the knowledge to the society as well as to the next generation.

PSO 13: Students will learn to work in groups and present the information in a clear, concise and logical manner by preparation of posters and powerpoint presentations to participate in different State level/ National/ International Seminars/ Workshops.

PSO 14: After completion of B.Sc. Programme with Physiology General, the students will be able to apply the acquired concepts and principles to study different applied courses related to life science in their future career and this programme will also help students to enhance their employability for jobs in different health related sectors.

HIRALAL MAZUMDAR MEMORIAL COLLEGE FOR WOMEN

DEPARTMENT OF PHYSIOLOGY

SESSION-2021-2022

NAME OF THE ACADEMIC PROGRAM: PHYSIOLOGY GENERAL

PROGRAM CODE: PHYG

COURSE CODE: PHYG (GE/DSC) & PHYG (DSE) & PHYG(SEC)

COURSE TITLE: PHYSIOLOGY (GENERAL ELECTIVE /DISCIPLINE SPECIFIC CHOICE)

PHYSIOLOGY (DISCIPLINE SPECIFIC ELECTIVE)

PHYSIOLOGY (SKILL ENHANCEMENT COURSE)

COURSE OUTCOME (Cos)

After Completion of this Course Successfully, the Students will be able to

CO-1	Gain knowledge about the chemistry of biomolecules, enzymology, metabolic biochemistry, nutritional biochemistry, gastrointestinal physiology and also the qualitative identification of different physiologically important substances as well as the quantitative biochemical estimation of glucose, sucrose, lactose amimonitrogen in samples.
CO-2	Soak themselves with the knowledge of the cardiovascular, respiratory and renal physiology including basic idea about some common diseases of these vital systems.They learn to measure bloodpressure, pulse rate in both resting condition and after physical exertion to determine the physical fitness of a particular subject. They also gain knowledge on the pneumigraphic recordings of respiratory movements during different activities.

CO-3	<p>Acquire details knowledge on the nerve & muscle physiology, total nervous system including brain & ther parts of the central nervous system, peripheral and autonomic nervous systems, receptors, reflexes, different types of general and special senses like vision, audition etc, higher intellectual functions like learning, memory etc. They also gain knowledge on the histological study of nerve & muscle, determination of visual acuity, colour vision, grip strength etc, the parameters which are verymuch important for being physically active.</p>
CO-4	<p>Acquire knowledge on different hemalogical techniques which they may apply to carryout tests and procedures to diagnose and treat problems with the blood in different diagnostic laboratories.</p>
CO-5	<p>Gain knowledge about the Endocrinology and Reproductive Physiology. Through the histological study of the permanent slides of different mammalian tissues and organs, the students can acquire knowledge on the morphogical features of different tissues and organs.</p>
CO-6	<p>Assess the quantities of food items and nutrients consumed by the people in their neighbourhood by the Diet Survey. After analyzing the survey data they can find out whether the existing dietary patterns are satisfactory or not, identify, predict and detect chronic or acute food & nutritional problems, findout the association between diet and disease, formulate the diet charts.</p>
CO-7	<p>Gain knowledge on biostatistics which is essential for the computation of data for the management of particular research projects in the field of physiology and other allied disciplines.</p>

CO-8	Acquire knowledge on the important effects of exercise on body's systems, tissues and cells to build a strong and healthy body and also on the uses of scientific principles to allow our body to train better, perform better and recover quicker.
CO-9	Acquire knowledge on different hemalogical techniques which they may apply to carryout tests and procedures to diagnose and treat problems with the blood in different diagnostic laboratories.
CO-10	Gain knowledge about nutrition and dietetics, digestive physiology & metabolic biochemistry, promotion of good health through proper nutrition, prevention of related illness in the population.
CO-11	Acquire knowledge on the causes, hazards and prevention of different types of environmental pollution. They learn some techniques to identify the pollutants and the degree of pollution to prevent the exposure to protect our health as well as community.
CO-12	Assess the quantities of food items and nutrients consumed by the people in their neighbourhood by the Diet Survey. After analyzing the survey data they can find out whether the existing dietary patterns are satisfactory or not, identify, predict and detect chronic or acute food & nutritional problems, findout the association between diet and disease, formulate the diet charts.